

SPECIFICATION BLACK SIDE BEND NEON

NB-S1220 24V IP67



Features

- It is made of Dow Chemical SILASTIC™ ET-7021 silicone rubber, which provides high transparency and high strength.
- Unique black silicone body, it's easier to blend into different installation environment.
- Unique optical light distribution structure design, uniform lighting surface and no shadow.
- IP67 protection level, salt solution resistance, acids & alkalis and UV resistance.
- Excellent toughness, simple and stylish appearance, delicate and unique.
- 3-5 years warranty, working life ≥50000 hours.

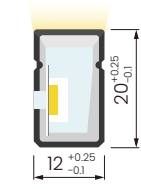
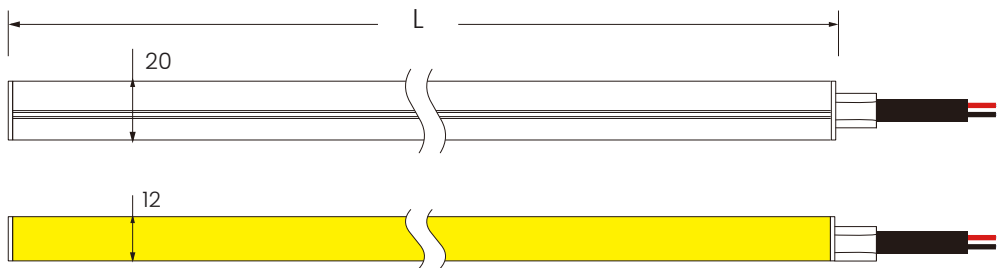
2700k
3000k
3500k
4000k
5000k
6500k

2700k
~
6500k

R G B Y O P RGB



Dimensions(Unit:mm)



Cross section

General Parameters

Voltage	DC24V
LED Solder-Point Temperature	Max. 65°C
Storage Temperature	-25°C~ 60°C
Ambient Temperature	Min.-25°C, Max (Table below)
CRI	see parameter tables

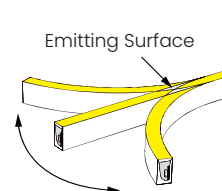
Power Ratings

Power(w/m)	10
Efficacy(lm/w)@4000K	10.7
Max Ambient Temperature	45°C

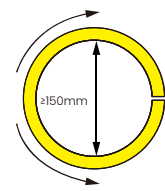
Due to the tolerance of the production and electrical components, output value and electrical power can vary up to 10%.

Length Standard

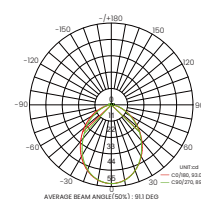
Length Range (M)	Final Length(mm)		Tolerance (mm)
	Integral end cap	Silicone end cap	
0M<Neon Strip(L)≤5M	L+5	L+5.5	±7
5M<Neon Strip(L)≤10M	L+5	L+5.5	±10
10M<Neon Strip(L)≤15M	L+5	L+5.5	±13
15M<Neon Strip(L)≤18M	L+5	L+5.5	±16



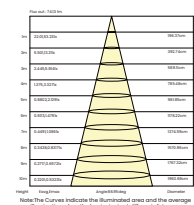
Horizontal Bending



Min. Bending Diameter



Light Distribution Curve



Effective Average Illuminance

Note: The above data is based on 24V, 10W/M, single colour with 4000k colour temperature.

If you need IES files for other types, please contact our sales department.

Single Color : Model NB-S1220V24-CCx-E

CCT(K)	CRI	Voltage	Power(W)	Lumen (lm/m)	Efficiency (lm/w)	Unit Length (mm)	Max. Run Length (M)	CC/CV
2700K±150	≥90	DC24V	10	103	10.3	50	17	CC
3000K±150	≥90	DC24V	10	109	10.9	50	17	CC
3500K±200	≥90	DC24V	10	109	10.9	50	17	CC
4000K ⁺⁴⁰⁰ ₋₂₀₀	≥90	DC24V	10	107	10.7	50	17	CC
5000K ⁺⁵⁰⁰ ₋₃₀₀	≥90	DC24V	10	110	11.0	50	17	CC
6500K±500	≥90	DC24V	10	99	9.9	50	17	CC
Red	--	DC24V	10	47	4.7	50	18	CC
Green	--	DC24V	10	92	9.2	50	17	CC
Blue	--	DC24V	10	15	1.5	50	17	CC
Yellow	--	DC24V	10	33	3.3	50	18	CC
Orange	--	DC24V	10	40	4.0	50	18	CC
Pink	--	DC24V	10	91	9.1	50	17	CC

Tunable White : Model NB-S1220V24-Ca-E

CCT(K)	CRI	Voltage	Power(W)	Luminous Flux (lm/m)	Efficacy (lm/w)	Unit Length (mm)	Max. Run Length (M)	CC/CV
2700K±150	≥90	DC24V	5	55	11.0	62.5	5	CV
6500K±500	≥90	DC24V	5	52	10.4	62.5	5	CV
2700K+6500K	≥90	DC24V	10	106	10.6	62.5	5	CV

RGB : Model NB-S1220V24-Crgb-E

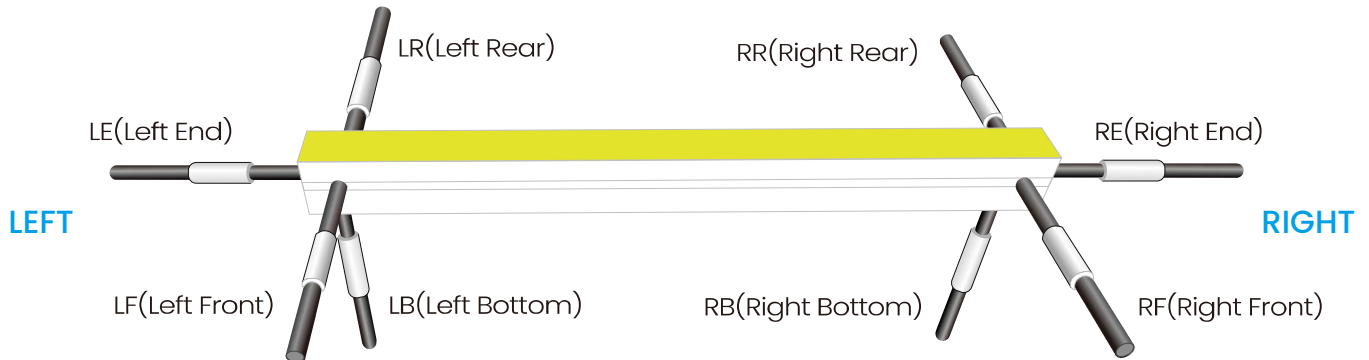
CCT(K)	CRI	Voltage	Power(W)	Luminous Flux (lm/m)	Efficacy (lm/w)	Unit Length (mm)	Max. Run Length (M)	CC/CV
R	--	DC24V	3.3	11	3.4	83.3	5	CV
G	--	DC24V	3.3	33	9.9	83.3	5	CV
B	--	DC24V	3.3	5	1.4	83.3	5	CV
RGB	--	DC24V	10	49	4.9	83.3	5	CV

RGBW : Model NB-S1220V24-Crgbwx-E

CCT(K)	CRI	Voltage	Power(W)	Luminous Flux (lm/m)	Efficacy (lm/W)	Unit Length (mm)	Max. Run Length (M)	CC/CV
R	--	DC24V	3.3	12	3.5	83.3	5	CV
G	--	DC24V	3.3	34	10.2	83.3	5	CV
B	--	DC24V	3.3	6	1.7	83.3	5	CV
W:2700±150	≥90	DC24V	5	49	9.7	83.3	5	CV
RGBW	--	DC24V	15	98	6.5	83.3	5	CV
R	--	DC24V	3.3	12	3.5	83.3	5	CV
G	--	DC24V	3.3	34	10.2	83.3	5	CV
B	--	DC24V	3.3	6	1.7	83.3	5	CV
W:3000±150	≥90	DC24V	5	51	10.2	83.3	5	CV
RGBW	--	DC24V	15	102	6.8	83.3	5	CV
R	--	DC24V	3.3	12	3.5	83.3	5	CV
G	--	DC24V	3.3	34	10.2	83.3	5	CV
B	--	DC24V	3.3	6	1.7	83.3	5	CV
W:3500±200	≥90	DC24V	5	54	10.8	83.3	5	CV
RGBW	--	DC24V	15	107	7.1	83.3	5	CV
R	--	DC24V	3.3	12	3.5	83.3	5	CV
G	--	DC24V	3.3	34	10.2	83.3	5	CV
B	--	DC24V	3.3	6	1.7	83.3	5	CV
W:4000±300	≥90	DC24V	5	53	10.5	83.3	5	CV
RGBW	--	DC24V	15	104	6.9	83.3	5	CV
R	--	DC24V	3.3	12	3.5	83.3	5	CV
G	--	DC24V	3.3	34	10.2	83.3	5	CV
B	--	DC24V	3.3	6	1.7	83.3	5	CV
W:5000±300	≥90	DC24V	5	51	10.2	83.3	5	CV
RGBW	--	DC24V	15	101	6.7	83.3	5	CV
R	--	DC24V	3.3	12	3.5	83.3	5	CV
G	--	DC24V	3.3	34	10.2	83.3	5	CV
B	--	DC24V	3.3	6	1.7	83.3	5	CV
W:6500±500	≥90	DC24V	5	47	9.3	83.3	5	CV
RGBW	--	DC24V	15	93	6.2	83.3	5	CV

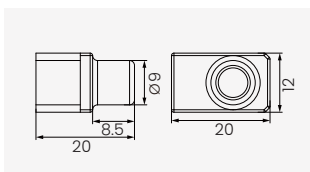
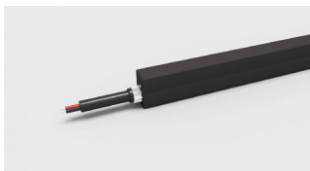
- Maximum run length refers to the maximum length powered from one end using the standard 30 cm cable.
- The specified color temperature refers to the finished product.
- The values shown are typical. Due to production and component tolerances, light output and electrical power may vary by up to $\pm 10\%$.
- All products can be dimmed; The dimmer voltage must match the rated voltage of the LED strip.
- The output frequency of the dimmer of the constant-current led light should be **less than 2k Hz**, and the output PWM can control the led light.

Cable Entry Directions

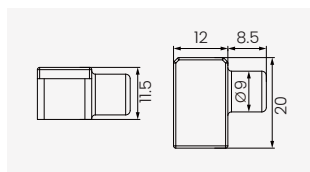
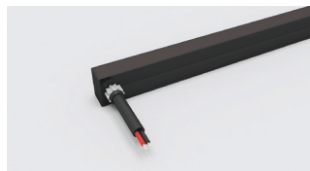


Cable Entry and End Cap Options (Unit: mm)

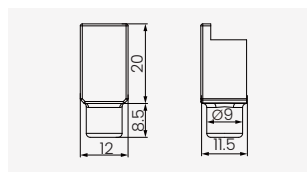
Integral End Cap : (IP67)



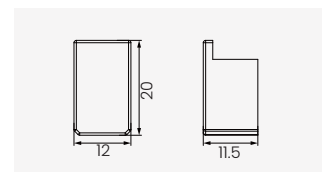
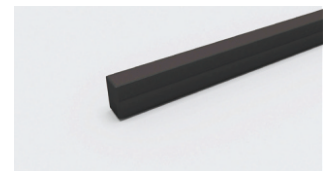
Front Cable Entry



Side Cable Entry

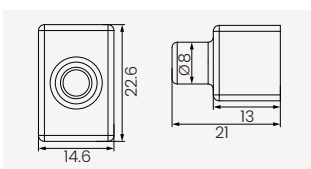
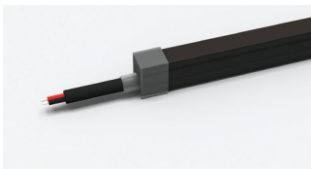


Bottom Cable Entry

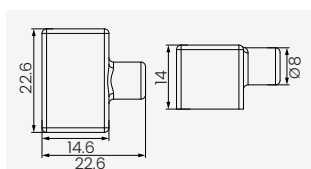
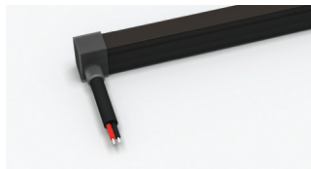


Closed End Cap

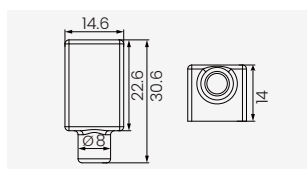
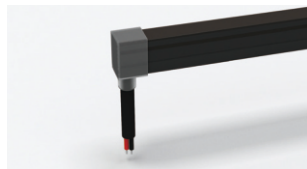
Silicone End Cap : (IP67)



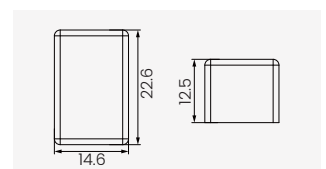
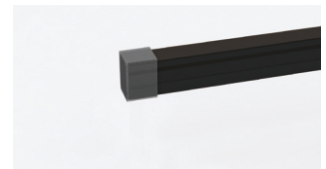
Front Cable Entry



Side Cable Entry

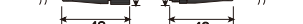
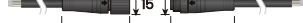


Bottom Cable Entry



Closed End Cap

Cables and Connectors

Cable Type	Schematic Diagram	Specification	Core	Electrical Properties
PVC Cable		OD: 5.0 mm / Inner core: 20AWG	● ●	Red V+/Black V-
		OD: 5.0 mm / Inner core: 20AWG	● ○ ●	Brown V+/White W/Yellow WW
		OD: 5.5 mm / Inner core: 20AWG	● ● ● ●	Black V+/Blue B/Green G/Red R
		OD: 5.5 mm / Inner core: 22AWG	● ○ ● ● ●	Black V+/White W/Blue B/Green G/Red R
Waterproof Connector with PVC Cable		OD: 5.0 mm / Inner core: 20AWG M12 Male/Female Connector	● ●	Red V+/Black V-
		OD: 5.0 mm / Inner core: 20AWG M12 Male/Female Connector	● ○ ●	Brown V+/White W/Yellow WW
		OD: 5.5 mm / Inner core: 20AWG M12 Male/Female Connector	● ● ● ●	Black V+/Blue B/Green G/Red R
		OD: 5.5 mm / Inner core: 22AWG M12 Male/Female Connector	● ○ ● ● ●	Black V+/White W/Blue B/Green G/Red R
Silicone Cable		OD: 6.0mm / Inner core: 20AWG	● ●	Red V+/Black V-
		OD: 6.0mm / Inner core: 20AWG	● ○ ●	Brown V+/White W/Yellow WW
		OD: 6.0mm / Inner core: 20AWG	● ● ● ●	Black V+/Blue B/Green G/Red R
		OD: 6.4 mm / Inner core: Red/Black--20AWG Green/Blue/White--22AWG	● ○ ● ● ●	Black V+/White W/Blue B/Green G/Red R
Waterproof Connector with Silicone Cable		OD: 6.0 mm / Inner core: 20AWG M12 Male/Female Connector	● ●	Red V+/Black V-
		OD: 6.0 mm / Inner core: 20AWG M12 Male/Female Connector	● ○ ●	Brown V+/White W/Yellow WW
		OD: 6.0 mm / Inner core: 20AWG M12 Male/Female Connector	● ● ● ●	Black V+/Blue B/Green G/Red R
		OD: 6.4 mm / Inner core: Red/Black--20AWG Green/Blue/White--22AWG M12 Male/Female Connector	● ○ ● ● ●	Black V+/White W/Blue B/Green G/Red R

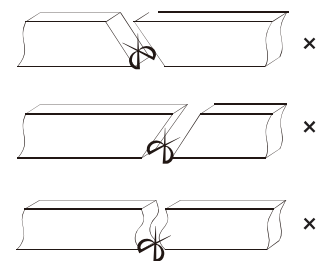
Cutting Mark



Note:
The bottom of the LED strip has a transparent window. The black mark indicates the cutting position.



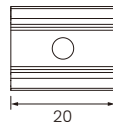
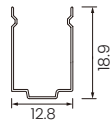
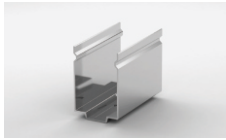
Use a professional cutting tool to cut vertically at the cutting mark.



Please don't be feel free to cut and cut into an oblique angle or cambered section.

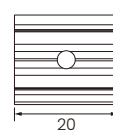
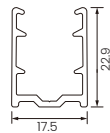
Installation Accessories

Mounting Clips



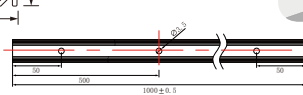
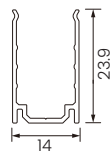
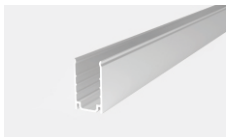
Name	Mounting Clips
Dimension:	20x12.8x18.9mm
Accessories:	M3 × 16 mm (SUS304)

Aluminum Mounting Clips



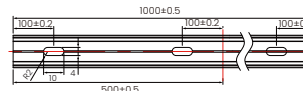
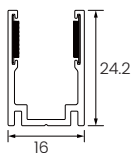
Name	Aluminum Mounting Clips
Dimension:	20x17.5x22.9mm
Accessories:	M3 × 16 mm (SUS304)

Aluminum Profile



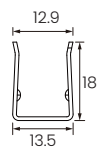
Name	Aluminum Profile
Dimension:	1000(±0.5)x14x23.9mm
Accessories:	M3 × 16 mm (SUS304)

Internal Gear Profile



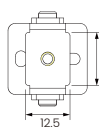
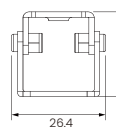
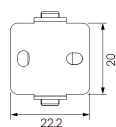
Name	Internal Gear Profile
Dimension:	1000(±0.5)x16x24.2mm
Accessories:	M3 × 16 mm (SUS304)

Curved Profile



Name	Curved Profile
Dimension:	1000x13.5x18mm
Accessories:	M3 × 16 mm (SUS304)

Adjustable Angle Clip (use with aluminum clips or profile)



Dimension:	22.2x26.4x23.8mm
Accessories:	Screw M3x25mm(SUS304) Screw M3.5x8mm(SUS304)

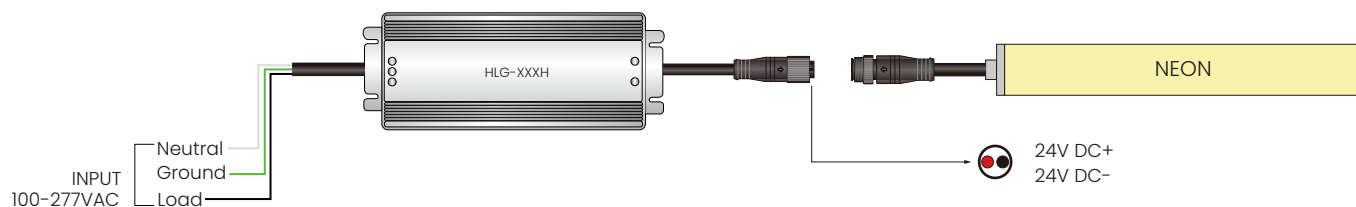
Suspension Installation



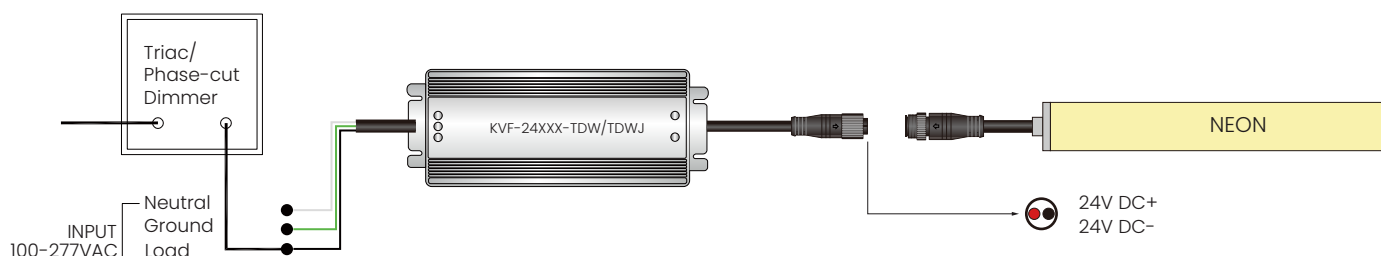
Use with the profile

Single Color Connection Diagram

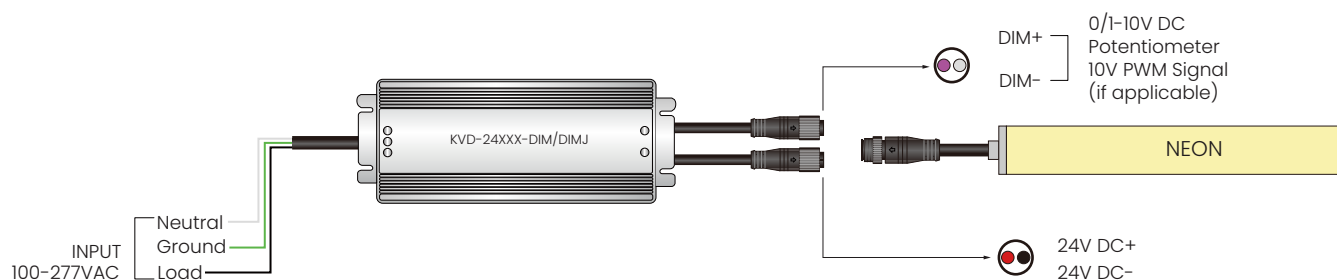
Non-dimmable



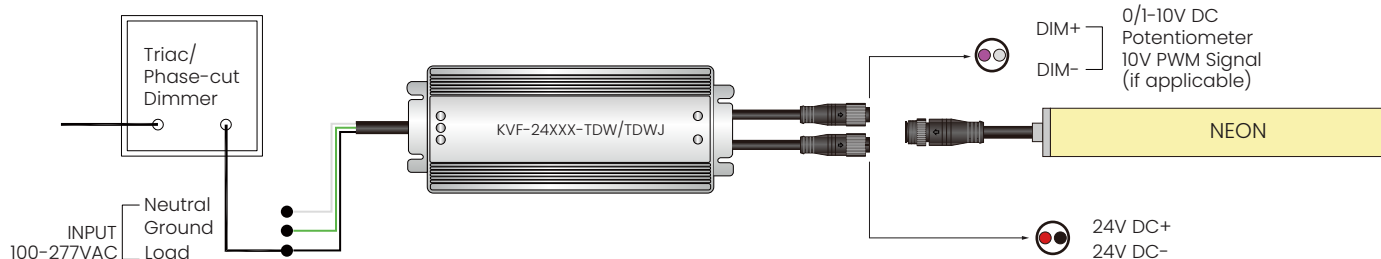
Phase-Cut / TRIAC Dimming



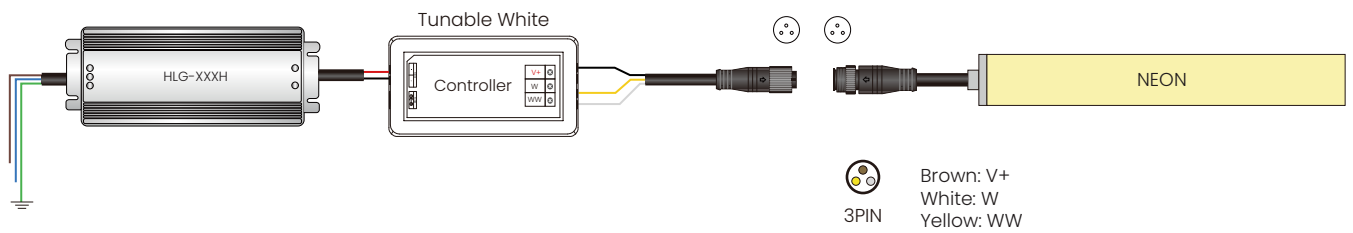
4-in-1 Dimming(0-10V/1-10V/Potentiometer/10V PWM)



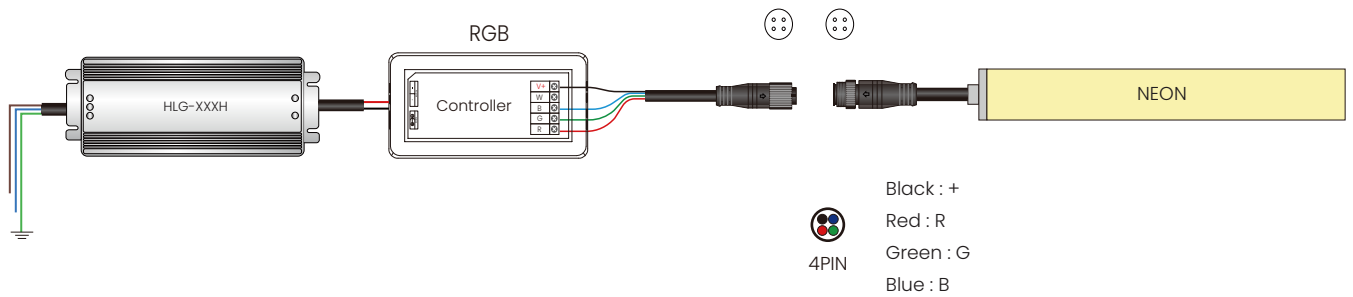
5-in-1 Dimming (Triac/0-10V/1-10V/Potentiometer/10V PWM)



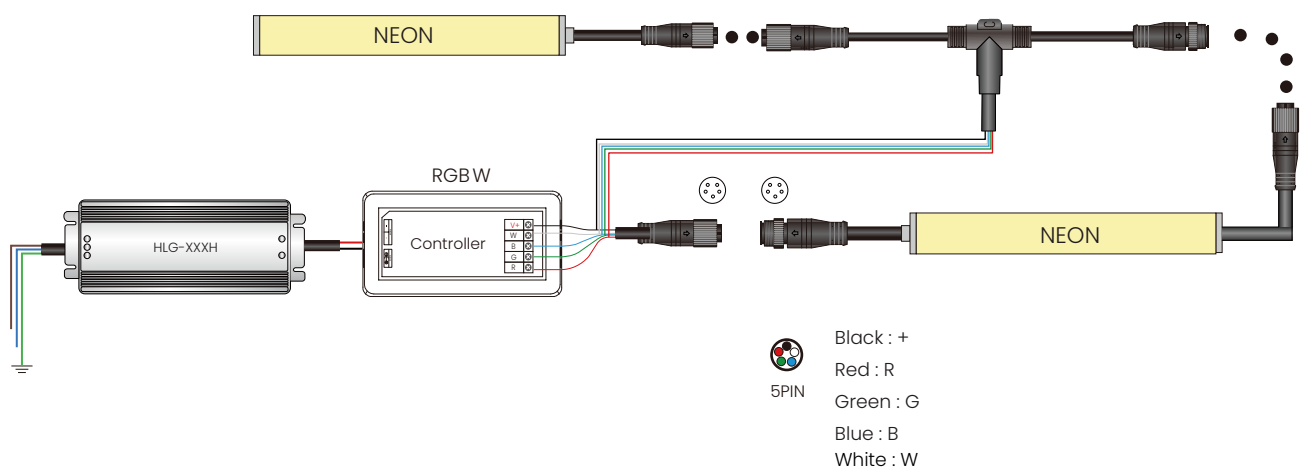
Tunable White Connection Diagram



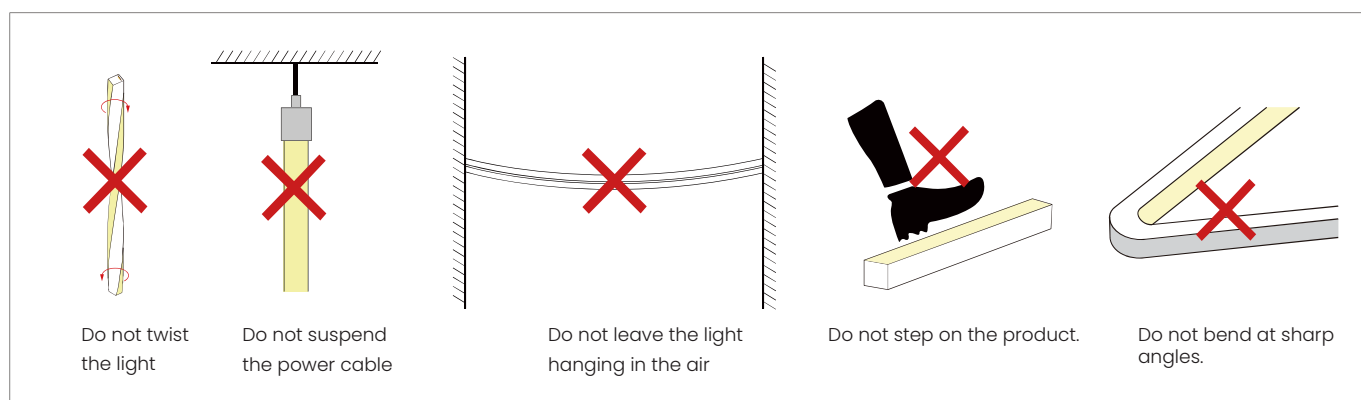
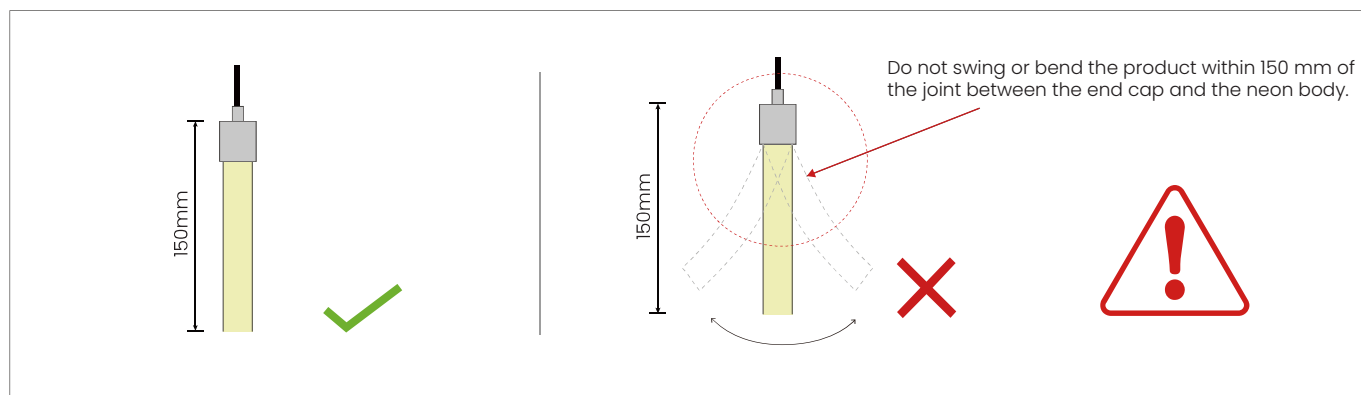
RGB Connection Diagram



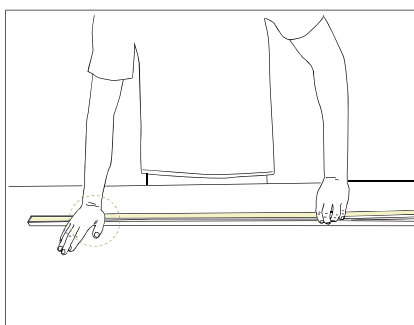
RGBW Connection Diagram



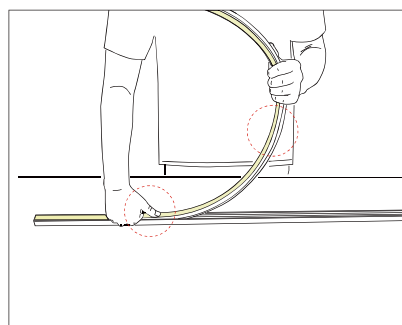
Installation Precautions



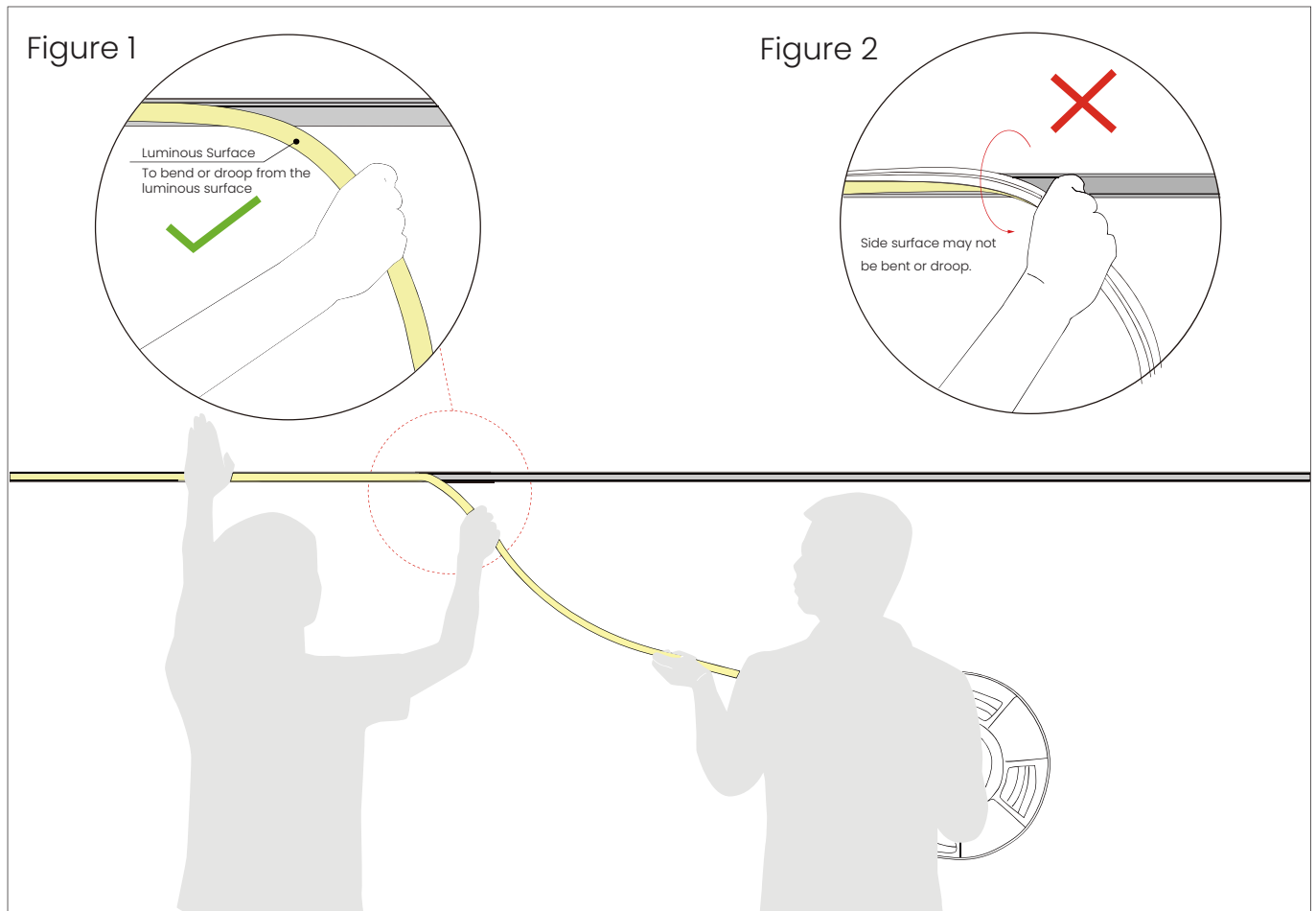
Insert into the Profile



- Use your palm to slowly press the LED strip into the channel, then gently straighten it along the channel.
- Try to keep the led strip in a flat state during the installation process.



- Do not press the LED strip with one finger; this may damage internal components.
- The bent arc of the led strip should not be too large during installation.

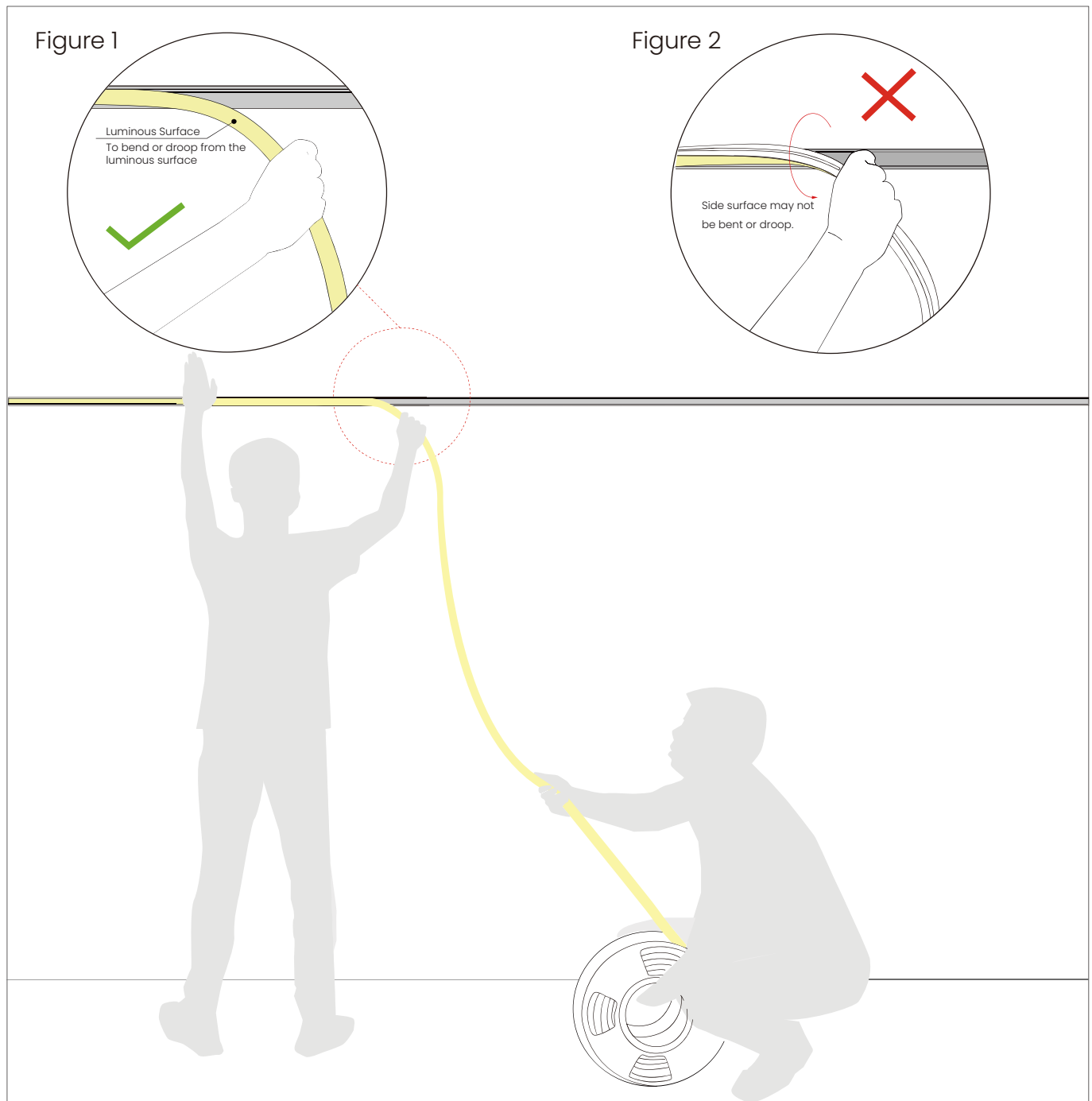
Installation Precautions--Side Mounted (If the length of the light is more than 2 meters, two people must work together to install it.)**1. Installer:**

- Press the light with the palm of the left hand to slowly load it into the slot. Straighten the light with right hand so that it droop it in the direction of your hand. See Figure 1.
- Side surface may not be bent or droop, See Figure 2.

2. Assistant:

- Cooperate with the installer to lift the reel of the light, and then slowly deliver the light to installer. Do not pull or twist the light during the installation.

Installation Precautions--Side Mounted (If the length of the light is more than 5 meters, two people must work together to install it.)

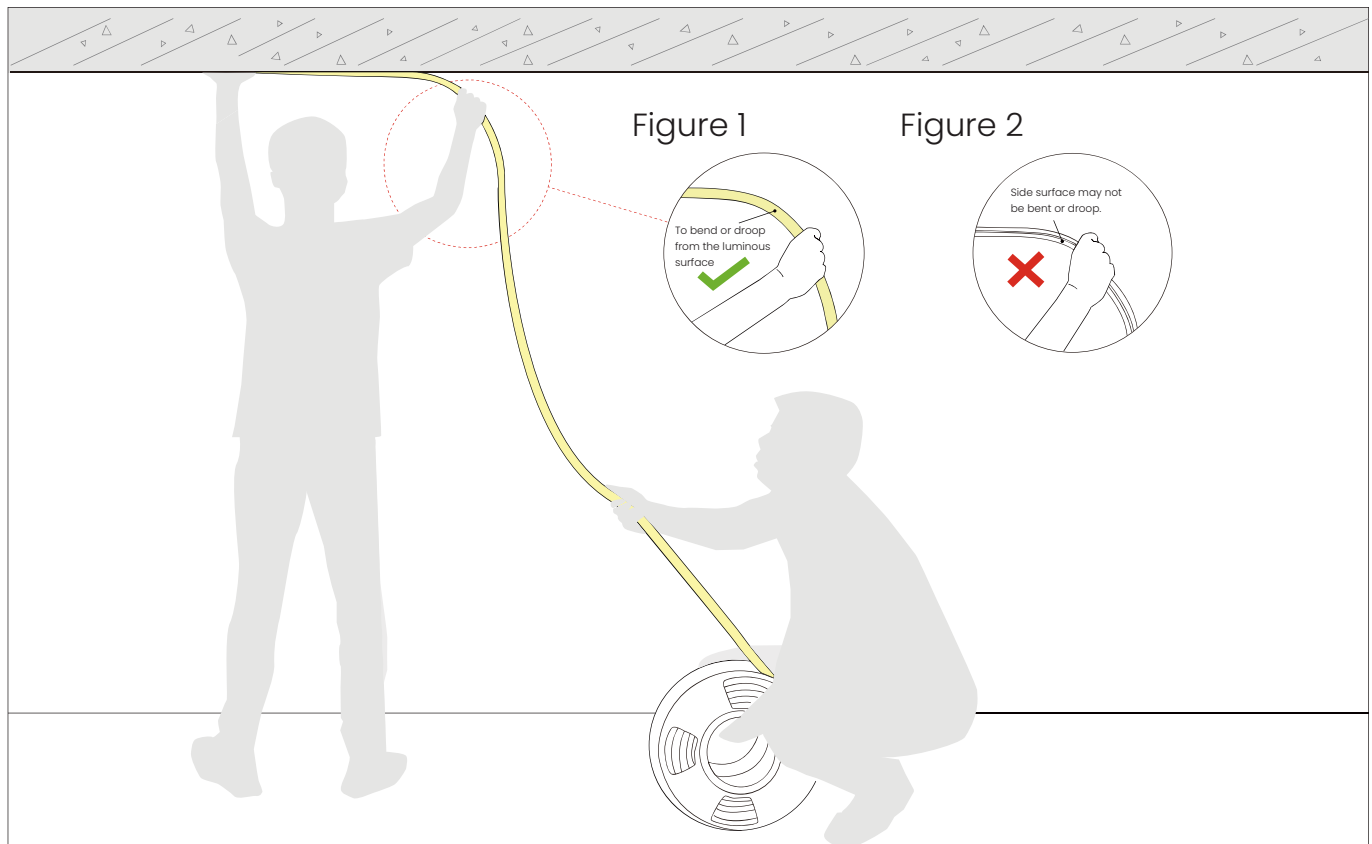


1. Installer:

- Press the light with the palm of the left hand to slowly load it into the slot. Straighten the light with right hand so that it droop in the direction of your hand. See Figure 1.
- Side surface may not be bent or droop, See Figure 2.

2. Assistant:

- Cooperate with the installer to slowly deliver the light to installer.
- Do not pull or twist the light during the installation.

Installation Precautions--Top Mounted (If the length of the light is more than 2 meters, two people must work together to install it.)**1.Installer:**

- Press the light with the palm of the left hand to slowly load it into the slot. Straighten the light with right hand, hold it and rotate it 90° to droop it in the direction of your hand. See Figure 1.
- Side surface may not be bent or droop, See Figure 2.

2.Assistant:

- Cooperate with the installer to slowly deliver the light to installer. Do not pull or twist the light during the installation.

Packaging Information



Standard Packaging: White carton with paper reel inside.

Model	Qty/Roll(m)	Rolls/Carton	Carton Size	Net Weight	Gross Weight
NB-SI220 24V IP67	5m	8	41 x 41 x 26 cm	10.8 kg/carton	12.2 kg/carton
NB-SI220 24V IP67	10m	3	41 x 41 x 26 cm	8.1 kg/carton	9.393 kg/carton
NB-SI220 24V IP67	18m	2	41 x 41 x 26 cm	9.7 kg/carton	10.7 kg/carton

For reference only. Final packing information shall be subject to actual shipment.

Notes

Cable size at the power-supply output depends on the total load current and cable length. Select the cable according to the table below.

Light Current	Cable Specification								
	L=1M	L=2M	L=4M	L=6M	L=8M	L=10M	L=12M	L=14M	L=16M
1A	AWG26	AWG23	AWG21	AWG18	AWG18	AWG17	AWG16	AWG15	AWG15
2A	AWG23	AWG21	AWG18	AWG16	AWG15	AWG14	AWG13	AWG12	AWG12
3A	AWG22	AWG18	AWG16	AWG14	AWG13	AWG12	AWG11	AWG11	AWG10
4A	AWG21	AWG18	AWG15	AWG13	AWG12	AWG11	AWG10	AWG9	AWG9
5A	AWG20	AWG17	AWG14	AWG12	AWG11	AWG10	AWG9	AWG9	AWG8
6A	AWG18	AWG16	AWG13	AWG11	AWG10	AWG9	AWG8	AWG8	AWG7
7A	AWG18	AWG15	AWG12	AWG11	AWG9	AWG8	AWG8	AWG7	AWG6
8A	AWG17	AWG15	AWG12	AWG10	AWG9	AWG8	AWG7	AWG7	AWG6
9A	AWG17	AWG14	AWG11	AWG10	AWG8	AWG7	AWG7	AWG6	AWG5
10A	AWG16	AWG14	AWG11	AWG9	AWG8	AWG7	AWG6	AWG6	AWG5

- ※ The unused light should be sealed with the packaging bag to avoid prolonged exposure.
- ※ Use a 24 V DC isolated constant-voltage power supply with ripple below 5%. Using other types of power supply may damage the light or cause other safety risks.
- ※ In practical application, Reserve at least 20% power-supply headroom.
- ※ It is recommended that professionals connect the power supply. Do not connect the power supply with live power to avoid electric shock.
- ※ Please confirm whether the voltage of the power supply is consistent with the voltage of the light; Pay attention to the positive and negative poles of the power cord, Do not reverse polarity, so as not to cause product damage;
- ※ When multiple power supplies are used, ensure that the positive poles of the power supply are not connected in parallel. Otherwise, the power supply system may be unstable or damaged after long-term operation.
- ※ If the actual application length exceeds the specified length, it may cause overload, overheating, and uneven brightness of the light.
- ※ During installation, please do not scratch, twist, or bend the light irregularly. Otherwise, the light may be damaged beyond repair.
- ※ To ensure the life and reliability of the light, please do not over bend the light, which will damage the product itself.
- ※ To protect your eyes, please avoid staring at the glowing surface of the light for a long time.
- ※ Installation, disassembly, and maintenance must be performed by qualified personnel only.
- ※ Do not use any acidic or alkaline adhesive to fix the light (including but not limited to glass glue, etc.)
- ※ IP67 products are not suitable for long-term immersion in water; IP68 versions are factory-customized only. User cutting or processing may compromise IP68 protection.
- ※ Because of the difference in structure, even if the same color temperature value, products of different sizes may appear slightly different in color.

Tests showed that formaldehyde and benzene compounds can cause yellowing of silicone. In newly decorated interiors, epoxy floor paint, wall paint, wallpaper adhesive, decoration materials, and new furniture may release formaldehyde and benzene compounds. It is recommended to remove these substances first, or ventilate the area for a period before installing the silicone neon light, to avoid affecting the silicone body.